Daily Diary Report by Bid Item

Contract No.: **04-0120F4**

Diary #: **462** **Const Calendar Day:** 834 **Date:** **21-Dec-2011** **Wednesday**
Inspector Name: **Bruce, Matt** **Title:** **Transportation Engineer**
Inspection Type: Continuous
Shift Hours: 07:00 am 06:30 pm **Break:** 00:30 **Over Time:** 03:00
Federal ID:
Location:
Reviewer: **Schmitt, Alex** **Approved Date:** **Status:** Submit

04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge

Weather

Temperature **7 AM** 40 - 50 **12 PM** 50 - 60 **4PM** 50 - 60
Precipitation 0.00" **Condition** Partly cloudy

Working Day ☐ If no, explain:

Diary: Dispute ☐

Work description.

- Prepared the Alta Vista surveyors for surveying tasks for today. The task today for Chris and Erol was to shot the Hinge K tie-down blockouts in the bottom slab of the W-Line YBITS bridge. There are a total of 20 tie-downs which go through the top deck and are anchored into the ground likely with micropile. A point was resected from control points 6056 and MB007. Four working points were established to survey the bottom slab tie-down blockouts in the cells near centerline.

It should be noted that the 1st cell south of the center girder was unaccessible due to the MCM carpenters placing lost deck posts in this location. This obstructed the line of sight and the tie-down blockouts were not shot at this location. Therefore 14 out 20 total blockouts in the bottom slab were shot today. Dave began to process the surveying work that Chris had done over the last few days.

- Took GPS measurements at 180 epochs on the four working points and resection point established by the Alta Vista surveyors. The centerline nail for the W-Line bridge placed by AECOM surveying consultants was also measured. The observed K value in the field was 1.
- The following is the hours worked by the Alta Vista consultants today:
  Dave Garrett (survey party chief) = 8hrs
  Chris Ferrucci (instrumentman) = 8hrs
  Erol Schaller (rodman) = 8hrs

- Met with District 4 scanner Robert Dolan to discuss the scans done on the Hinge K pipe beams as it relates to the design of the rebar at 1:00pm. Obtained the electronic files of the scans for the Hinge K pipe beam and free software of Cyclone to view the scans. We agreed to denote the mid-point at the end of the pipes, corners, circumference of the pipes, and control point locations. Robbie will try and add more detail to the report if time permits. I also gave Robbie a copy of my field notes for the survey done with the total station. We agreed to have the report/images completed by next week. Met with Robbie's boss Tom Taylor to discuss the availability of the scanning crew for future scans on the SAS project and he was receptive to the request.
- Observed the operation to haul the first cable strand from the east end of the bridge to the ending point just past the tower on the south mainspan. See other inspector diaries in the Team Cable group for labor, equipment, and additional observations. My comments on the operation are summarized below and in the attached photos.

1.) The cable strand for the rectangular preformed west loop lost shape and was severely twisted coming out of the swift onto the cable strand rollers. A remedial action should be taken to prevent this occurrence for subsequent cable strands.
2.) The secondary hauling system transfer arm connection (see photos below) needs a

"softer" material while handling the cable strand. This would help protect the galvanization

of the cable strand wires from the sharp edges of the connection steel. Also a softer connection will mitigate possibly shearing sections of the wire along the perimeter of the cross section. Evidence of the sharp edges is seen in the missing yellow paint of the steel

connection.

3.) Roller frame supports on the main and backspan catwalks near the tower saddle need to be modified to prevent roller fatigue and cable strand twist at the tower saddle.

Met with the Team Cable group members at the end of the shift to discuss these issues and observations seen through the first day of cable hauling.

Attachment

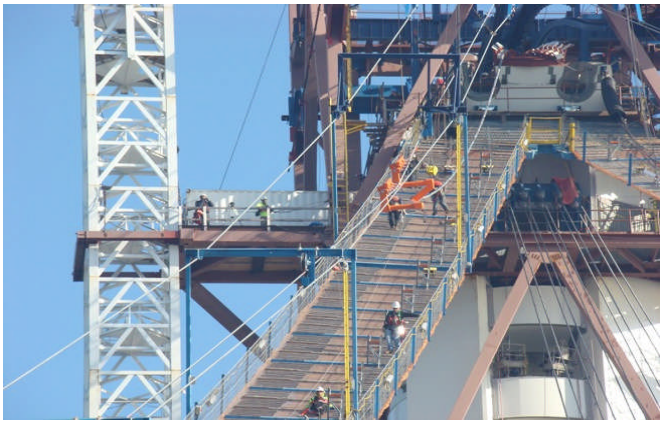
ABF ironworker preparing to place the cable strand into the transfer arm connection.

The first strand cable socket connected to the secondary south end transfer arm.

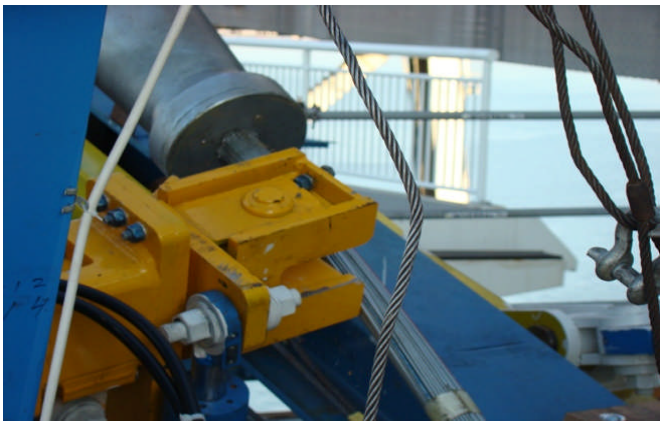
The first cable strand socket being hauled around the W2 cap beam near the center of the E-Line west deviation saddle.

Continuing to haul the first cable strand down the north backspan.

Preparing to connect the primary hauling frame to the cable strand socket and transfer to the primary system.

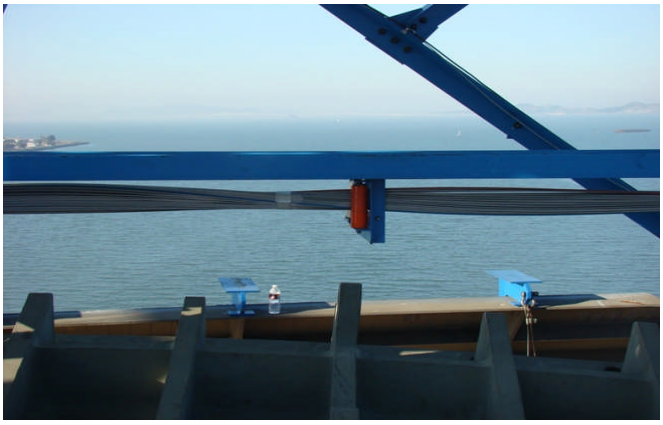


The primary hauling frame in the process of hauling the first cable strand over the tower saddle and going down the north backspan.



Cable strand socket released from the transfer arm connection.

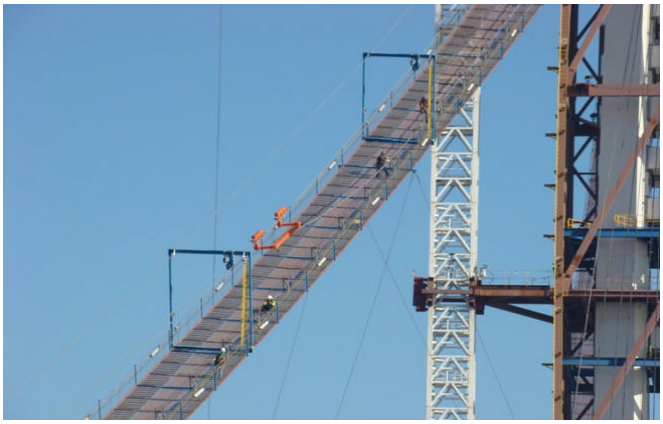
Uncoiling the first cable strand set on the swift near the north east end anchorage.



Preformed rectangular section of the west loop coming out of the swift onto the roller frames loosing shape.

ABF ironworker placing the cable strand into the transfer arm connection.

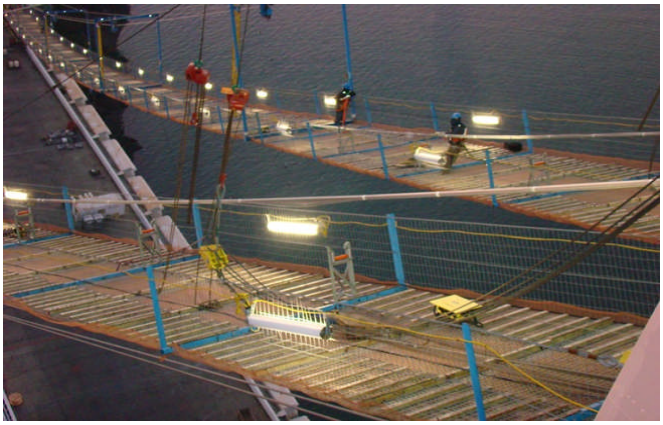
Preformed rectangular section of the west loop coming out of the swift onto the roller frames loosing shape.



Continuing to haul the first cable strand down the north backspan.

Approaching the secondary hauling system at the W2 cap beam on the north backspan.

Resuming the hauling operation of the first cable strand after it was transferred on the south backspan.



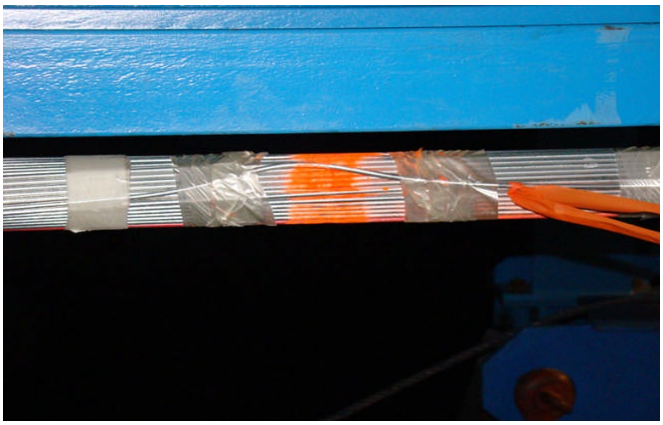
The tower saddle support rollers failled in fatigue due to the backspan roller supports not supporting the cable over a length, hence increasing load

The first cable strand socket being hauled close to the south secondary hauling system transfer arm.

ABF ironworkers preparing to transfer the first cable strand to the transfer arm and the secondary hauling system trolley that goes around the W2 cap.

First cable strand looking west from the north mainspan catwalk anchorage.

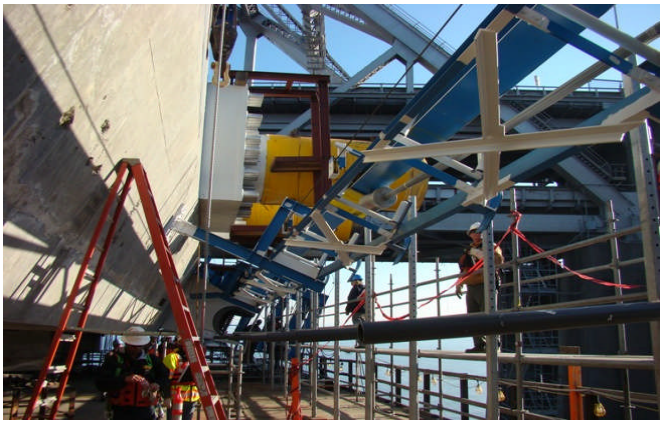
An additional tower saddle roller (on the right) was added to the north mainspan end due to the adjacent roller being worn out from the hauling path.



Bent cable wire observed and denoted with orange spray paint and flag.

Cable strand twist seen at the tower saddle roller supports.

ABF ironworkers guiding the first cable strand through the south side roller supports.



The first cable strand socket being hauled around the W2 cap beam near the E-Line Hinge K pipe beams.